INPUT | OUTPUT

DRAFT FOR COMMUNITY REVIEW

Input Output Catalyst 2025 Proposal: Advancing Decentralised Community Innovation Funding & Infrastructure

Version 1.0 **Apr 9, 2025**

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Introduction and Overview

This document outlines Input Output Catalyst Team's proposal for the next 12 months to deliver and scale Cardano's ecosystem growth and innovation funding infrastructure. Project Catalyst, an integral mechanism for decentralized innovation, has supported over 2,000 projects across 114 countries with over 3 million on-chain decisions. As participation and demand grow, Catalyst must evolve into a unified, decentralized, and cost-effective innovation engine.This proposal aims to address five key challenges necessary for continued growth, competitiveness, and decentralization:

1. Operational inefficiencies: Catalyst currently depends on substantial manual oversight and coordination across its funding cycles. Without targeted investment in tooling and automation, operational overhead will remain high. Streamlining systems now lays the groundwork for a leaner, more cost-effective operation once this development roadmap concludes in 2026.

2. Low voter engagement: While Catalyst sees higher voter engagement than most blockchain ecosystems, participation remains disproportionately low relative to the total ADA in circulation. This imbalance raises questions about how representative funding decisions truly are of the broader Cardano community.

3. Software limitations: Fragmented tools and inconsistent user workflows create friction across the entire Catalyst journey - from proposal to review to vote to ongoing project-funding administration and transparent outcomes. This complexity deters newcomers and reduces the system’s inclusivity and scalability.

4. **Voting power concentration:** A small number of high-stake wallets have the potential to dominate decision-making, leading to concerns around fairness and influence. Planned reforms like Quadratic Voting and DRep delegation are essential steps toward more equitable governance.

5. Catalyst’s early-stage focus: While Catalyst excels at incubating early-stage ideas and pilot programs, its role is sometimes mistaken for a long-term funding source. Clarifying Catalyst as a launchpad for experimentation and industry adoption, centred on fewer yet more targeted funding categories while encouraging mature projects not focused on partnerships to seek alternative treasury channels—will help align expectations and optimize resource allocation

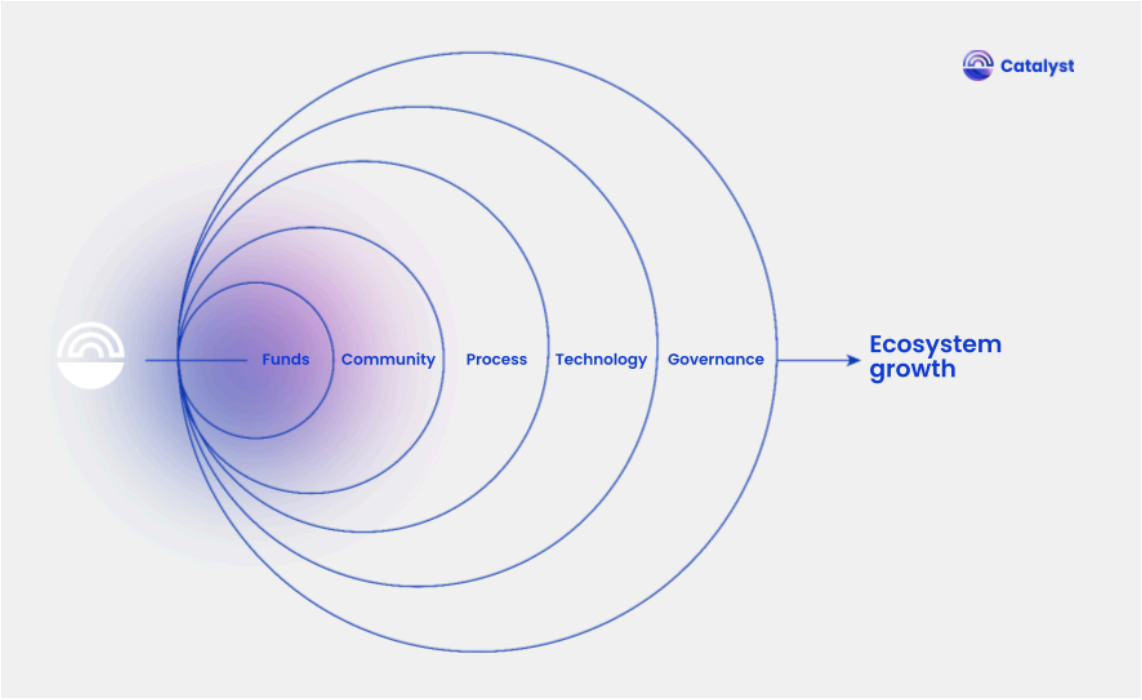
To this end, the Input Output Catalyst Team proposes three core initiatives:

1. **Catalyst Interface Design and Development for Diversified Funding Streams**
   A unified, device agnostic Catalyst platform will integrate proposal submission, voting, DRep delegation, automation including community contributions, and milestone impact tracking to boost participation. Leveraging Flutter for the reusability of codebase to support UI design for mobile-dominant regions, Cardano Native Token indexing, and modular configurations, Catalyst will make user interfaces more intuitive and extend support more diverse funding models, such as match-funding and multi-token campaigns.

2. **Production-Grade Decentralised Catalyst Infrastructure powered by Hermes**
   The Hermes engine will replace the existing federated side-chain infrastructure with a fully distributed, immutable ledger and peer-to-peer architecture using IPFS, LibP2P, and WASM. This enables parallel voting rounds, historic voting transparency, and secure blockchain-based vote casting. Plus Hermes empowers developers to build custom governance dApps and will advance Catalyst into a globally resilient public good.

3. **Execution of Three Funding Rounds, Retroactive Public Goods Funding (RetroPGF), Fund Operations**
   ~~₳~~60M will be deployed across three community-led funding rounds (Fund 14, 15, and 16), supporting 500–700 projects across R&D, real-world pilots, open source, and grassroots ecosystem initiatives. Additionally, ~~₳~~1M will be allocated to RetroPGF, incentivizing high-impact, completed public goods such as developer tools and educational content, including regionally focused contributions. ~~₳~~3.3m covers the Fund Operations costs to run the program for 12 months.

These initiatives are designed to provide assurance and enhanced governance of innovation funding, further decentralization, improve scalability and usability, reduce operating costs by up to 50% from 2026, and unlock pluralistic funding mechanisms that deliver a secure, and scalable platform for open innovation and ecosystem growth on Cardano.



Project Catalyst has become an invaluable governance and growth funding toolkit used by the Cardano ecosystem. Since 2021 the program and technology has enabled 3 million decisions to allocate more than 290m ada to fund 2091 projects. Over thirteen funding rounds, Catalyst has made **more than 12,000**

individual payments to grantees, totaling ₳180,274,235 plus tens of thousands more payments for incentivised community roles.

This has provided consistent financial support for the most well-known to the newest startup projects building on Cardano, sustaining their development, growing the Cardano ecosystem, and motivating thousands of community members to be active and engaged in regular governance and ecosystem accountability activities.

Project Catalyst is both an innovation program operating at scale plus a technical capability that has achieved a number of first of its kind milestones:

1. The first privacy-preserving voting application on Cardano, with mainnet voter registrations enabling 1 token 1 vote voting power attribution, followed by governance experiments with 1 wallet 1 vote, plus quadratic voting applied research and cryptography being implemented in the next Catalyst voting rounds.
2. The first Web3 voting and capital allocation platform to uniquely achieve decentralized, community-governed funding distribution and accountability at scale, disbursing $100m+ to builders in 114 countries across 6 continents, and encouraging dozens of Web2 industry leaders to adopt and deliver real world impact using Cardano.

Today, leading blockchain funding network Gitcoin spoke of a declining attention economy among donors, effectively diminishing returns on match funding, at its recent Shelling Point Denver festival during ETHDenver[1]. It is clear that a one-size-fits all approach is limiting and prohibitive.

Elsewhere in the industry, other blockchain ecosystems neither have the right tools nor processes or technologies in place to achieve high assurance growth funding with good accountability and compliance. Moreover, they mostly lack the scale of funding and experience that has been normalized in Cardano, via Project Catalyst, through widespread community participation in blockchain governance.

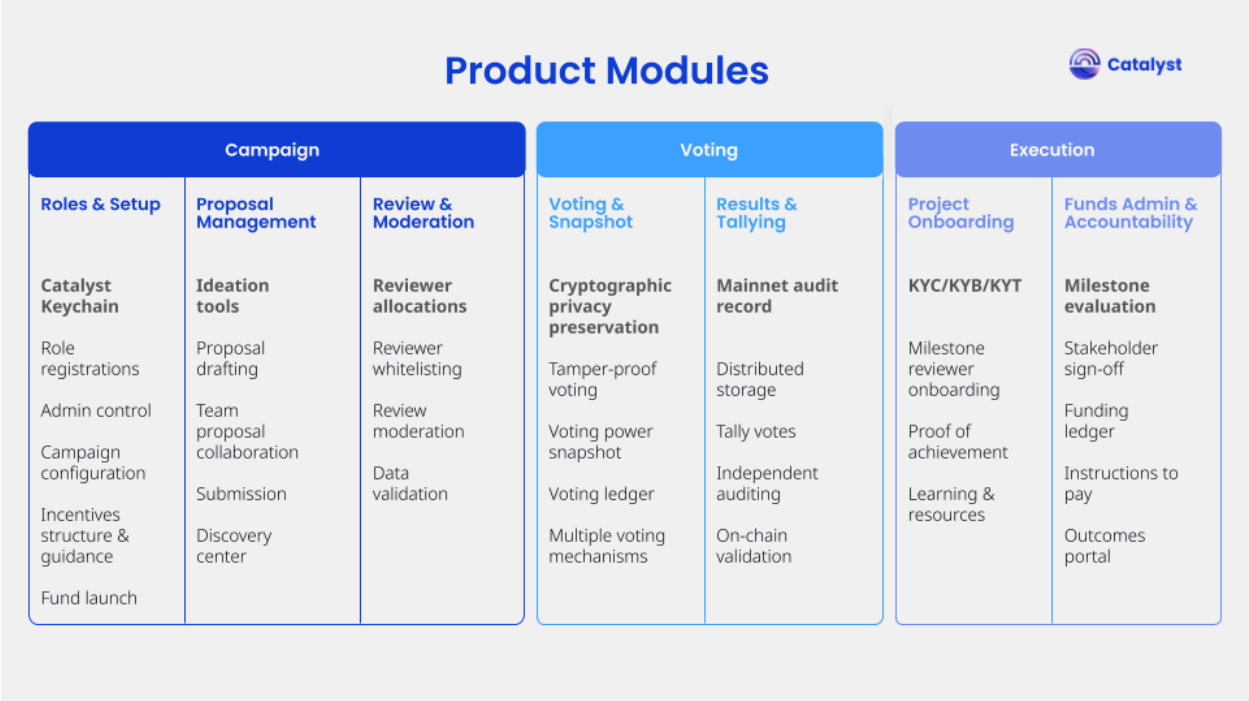
As demand for funding increases alongside ecosystem growth strategies, **pluralistic funding approaches** are an important evolution for Cardano, meaning funding streams are diversified and allow multiple ways for resources to reach builders and return more value back to the Cardano ecosystem.

The Catalyst platform is uniquely positioned to address all of these complex needs, having already laid the groundwork to mature the decentralized innovation engine. Before we discuss what is intended to be built with these resources, let us outline what has been achieved technically to date .

Catalyst unified UX and infrastructure work to date

Catalyst components:

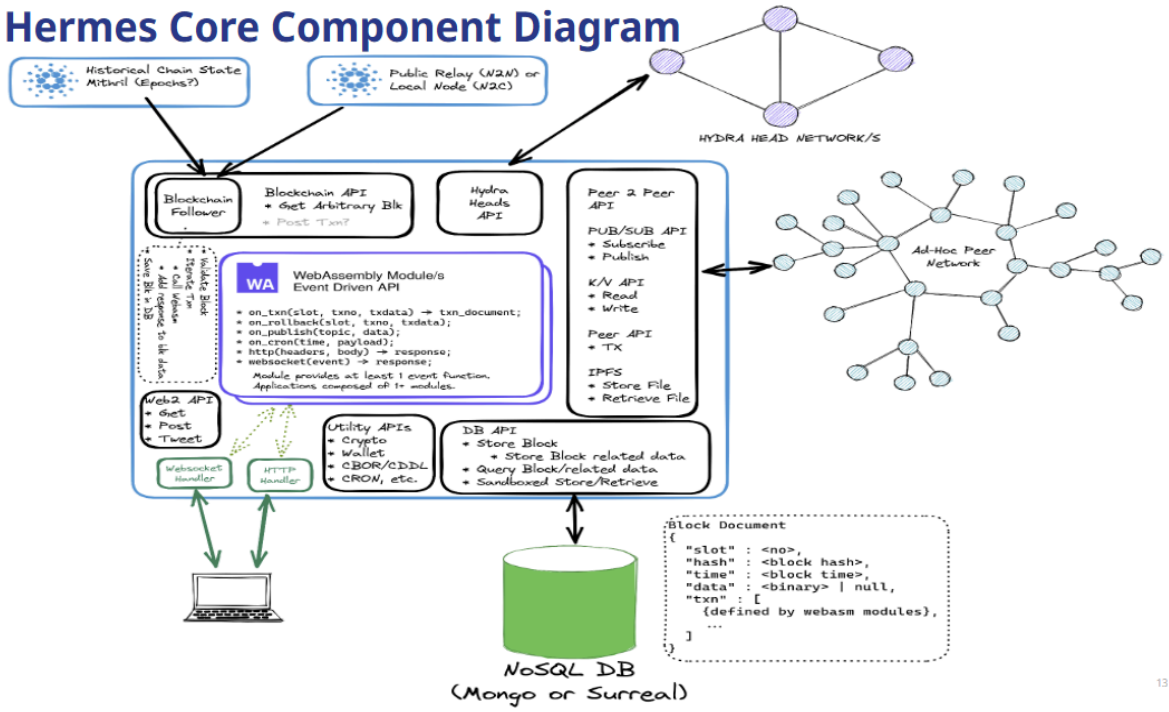
[1] Why Are We Still Funding This Way?



Hermes POC Features:

Hermes Engine POC Features & Benefits		Athena Application POC Features & Benefits	
Utility APIs	Package foundational utilities into modules that can easily be reused by other dApp builders	Registration Tracker	Track and validate registrations from Cardano mainnet to enable user traceability
Cardano Integration	Enable flexible communication with Cardano blockchain to leverage verifiable user account information and enable tx	Voting Power Calculator	Track ADA holdings of registered wallets and apply voting power calculations. Enables traceability of voting power across voting events.
File Handler	Define standard way of packaging applications and modules to make Hermes engine capable of handling arbitrary applications	Catalyst Events	Distributed source of truth for current and upcoming events, including key details like dates and other parameters
Gateway	Enable delivery of distributed UX to user machines on par with existing web2 app experiences	Cast Vote	Submit private, encrypted votes to peer network. Preserve individual privacy.
Sandbox	Allow users to safely interact with Hermes engine (eg run code locally, grant access to machine resource) by placing hard constraints on what code can do	Verify Vote	Verify that votes are cast as intended by querying the peer network. Distributed source of truth for voting history.
LibP2P / IPFS Integration	Leverage battle-tested distributed storage solution for the needs of Hermes applications	Tally Vote	Encrypted tally for independently verifiable voting results. Tally according to logic in event parameters.
Event Handler	Allow engine to run specific code in response to events from subscribed topics	Frontend UI	Allow non technical users to not only use application features but also participate in distributed operations like storage, compute.
WASM Executor	Execute business logic in response to events to produce application features		

Hermes technical architecture:



In September 2023, the community approved priorities for technical upgrades to **deliver the Catalyst innovation platform MVP** with the first release scheduled for Fund14**.** At time of writing the first release is undergoing dry-run testing.

Technical development for the past 12 months has centred on releasing MVP features that:

1. Address operational and UX inefficiencies:
    a. **Unified Catalyst user-experience** for web browser-based voter and Catalyst dRep registration, proposal submission, commenting and voting on proposals. No more ideascale

    b. **Proof of concept architecture** building towards fully decentralized Catalyst, capable of running on community nodes for distributed data storage and event processing.

2. Address voting power centralisation:
    a. from Fund14 **generalised quadratic voting** reduces the influence a small number of wallets can have on funding decisions

    b. **From Fund15 liquid democracy** offers voters the choice to vote directly or to delegate their voting power to representatives (Catalyst DReps)

Advancing the MVP now ensures a seamless end-to-end user experience that combines all funding stages. This is required to realise significant efficiencies that will **ultimately reduce the overall operational costs of running Catalyst, and programs like it.**

These one-off development costs in 2025 have the potential to radically transform performance and usability, reducing operating costs by a third to half of current expenditure due to the automation of a number of labour intensive processes that are as a result of the currently disjointed, inefficient flow of data.

Resourcing

Delivery will be led by the Input Output Catalyst Team, composed of the Catalyst engineering and fund operations teams. Work will be supported by experienced subcontractors, including TXPipe, Globant, among others as needed with proven expertise in both Catalyst and Cardano infrastructure and governance tooling.

Financial Considerations

This proposal outlines the pricing for delivering three core initiatives over a 12-month period, subject to budget approval by DReps. The total funding request of ₳69,459,000, denominated in both USD ($) and ADA (based on a provisional $0.50/ADA rate), reflects the pricing for activities set out in this Proposal, with payments accepted in ADA.

Funding for the Catalyst Interface Design and Development (Workstream 1, ₳2,479,000) and Production-Grade Decentralised Catalyst Infrastructure via Hermes (Workstream 2, ₳2,680,000) is requested by Input Output Global (IOG), leveraging the expertise of the Catalyst engineering team and subcontractors such as TXPipe and Globant.

For the Funding Rounds, Retroactive Public Goods Funding (RetroPGF), and Fund Operations (Workstream 3, ₳64,300,000, including ₳60M for funding rounds, ₳1M for RetroPGF, and ₳3.3M for administration), IOG submits this proposal on behalf of Catalyst Foundation Company (CFC), an independent Cayman Islands foundation responsible for securely disbursing funds to grantees and participants of the Catalyst project. All ₳64.3M for Workstream 3 will be transferred directly to CFC and held by a regulated custodian.

CFC has appointed IOG as its administrator to manage daily operations and ensure faithful execution of community voting decisions, with a Fund Operator Statement detailing milestones for transparency over the 12-month term. A portion of Workstream 3 funds will be disbursed to IOG and other service providers as outlined in the “Fund Operations” section, enhancing efficiency and accountability while supporting a scalable, decentralized innovation platform.

Contracting

IOG and CFC will maintain full discretion over their internal staffing decisions and, where relevant, any subcontracting arrangements necessary to fulfill their duties under this proposal, including the discretion to bring on new or different suppliers, utilizing Time & Materials and Fixed Price contracts where appropriate. Furthermore, security auditors may be required to meet delivery requirements, although specific auditors are not identified in proposals at this stage.

Proposed Initiative Summaries

In developing these proposals, IOG aims to support the community's direction towards enhanced governance and associated technologies, decentralization, alongside Catalyst's mainstay focus of funding activities that assure access to ecosystem funding for early stage use cases, open source tooling, creative community building and activations, and real world demonstrator pilots with established industry leaders.

Proposed Initiatives	Product Roadmap Alignment	Funding
Catalyst Interface Design and Development for Diversified Funding Streams This will deliver unified Catalyst interfaces covering complex funding administration components. Leveraging existing UX design system for Catalyst App and Flutter for its cross-platform portability to move from desktop to device-agnostic optimization: I. User-centric admin interfaces and dashboards. II. Diversified funding and decision-making beyond ADA with Cardano Native Tokens. III. Streamlined milestone management:	Grow participatory governance and community-led decision-making	~~₳~~2,479,000

Proposed Initiatives	Product Roadmap Alignment	Funding
Production-Grade Decentralised Catalyst Infrastructure via Hermes Advance the decentralisation, scalability, and auditability of Project Catalyst by delivering a rigorously stress tested implementation of Hermes to replace federated infrastructure with a fully distributed, peer-to-peer system. This includes enabling parallel voting events, secure Cardano-based vote casting, and public auditability of historic voting data that eliminates reliance on Web2 infrastructure services, empowering open innovation and ecosystem governance. I. Upgrade WASM Engine to latest Wasm Component Model required for Hermes Application Logic. II. Enhance WASM module Linker to support partial linking for modules which do not contain all events, or use all functions provided by the Hermes runtime. III. Add events for WASM driven validation of data published over IPFS Pub/Sub or the DHT. IV. Make Hermes engine execute multiple WASM modules in parallel for performance and scalability testing V. Implement a generalised solution to uniformly manage system resources. VI. Hermes package can read data directly from IPFS, not from a local copy downloaded from IPFS. VII. Enable execution of Hermes applications from an IPFS link, not only a locally present application. VIII. Implement cryptography for 2024's applied research into Quadratic Voting and Time-Weighted Stake models	Advance on-chain governance tooling and scalable funding systems	~~₳~~2,680,000

Proposed Initiatives	Product Roadmap Alignment	Funding
F14-F16 Catalyst Funding Rounds, Retroactive Public Goods Funding (RetroPGF), Fund Operations **Objectives:** In each of the stages proposal submission, community review, voting stage, cohort management and funding administration core technology and human resources are required to maintain these processes. Core operations cover the breadth of services described. Efficiencies and optimizations are continually discovered with user feedback in core operations which are then translated into requirements for Catalyst technical improvements. The introduction of a Retroactive Public Goods Funding (RetroPGF) experiment in 2025, with ₳1M allocated, will incentivize high-quality contributions by rewarding completed, high-impact work. **Outputs:** I. Communications, Town Halls II. F15 & F16 Launch Events III. Proposal Submission stage IV. Community Review stage V. Catalyst Technology Provision VI. Cohort Management VII. Funding Administration VIII. Data Publishing **Considerations:** Maintaining Catalyst infrastructure involves ensuring voting app availability across iOS and Android, updating GitHub with technical documentation, configuring supported wallets, providing live vote monitoring, managing voter tools like Snapshot and registration checker, conducting voting dry runs, maintaining Catalyst Core system services including the Voting ledger, security and privacy, the Mainnet Bridge for voter registration, Catalyst Data Services, public voting archives, providing Open APIs, optimizing transaction routing, balancing network load, and enforcing denial-of-service protection.	Enhancing On-chain Utility	~~₳~~64,300,000
	GRAND TOTAL	**~~₳~~69,459,000**

Proposed Initiative Detail

Catalyst Interface Design and Development for Diversified Funding Streams

- **Description/Benefits**: Complete the unification of all Catalyst user interfaces across devices. This includes proposal submission, reviewing, voting, DRep delegation, and milestone tracking in a mobile-first, intuitive experience. Enables expanded support for match-funding, multi-token campaigns, and Cardano Native Token-based governance.
- **Lead**: IOG - Catalyst Team (Engineering Team)
- **In Collaboration With**: TXPipe, Globant, other subcontractors
- **Funding**: ₳2,479,000
- **Key Outputs**:
    - Cross-platform Flutter-based interfaces for end-to-end Catalyst lifecycle
    - CNT indexing integration for non-ADA funding logic
    - Milestone tracking dashboards, contributor reputation scores
    - Account restoration capabilities
    - Scalable CI/CD deployment and campaign configuration tool

- **Problem:** The biggest limitation of Project Catalyst to date is it has suffered from a disjointed user experience with a combination of off-the-shelf and purpose built tools. Intuitive interfaces and integrated surfaces are integral to an optimal user experience otherwise bottlenecks appear and what should be a seamless journey requires transitions across cumbersome interfaces, frustrating peer-to-peer touchpoints, and ill-equipped digital surfaces.
- **Objective**: Increase participation by 30-50% minimum by improving accessibility across all devices and completing the unification of all the remaining components of the Catalyst user experience: combining ideation, proposal submission, community contributor roles (reviewing, moderating), voting, and project administration.
- For Catalyst, this means further design, development, and automation of user journeys and work flows for each type of Catalyst user experience.
- **Outcome:** Unlock the full end-to-end Catalyst experience for community members using any device to reduce barriers to entry and boost adoption (especially in emerging markets with high rates of smartphone ownership vs desktop).
- **Output:**
    - User-centric admin interfaces and dashboards.
        - All proposals, reviewer data, evidence of milestone achievements, and impact reporting data is transparently and intuitively available so community members can track the development and progress of project proposals and teams they interact with.
        - User contribution and participation is tracked for reputation-score and incentives attributions
    - Diversified funding and decision-making beyond ADA with Cardano Native Tokens.
        - Administration interfaces allow token issuers and co-funders to create additional funding opportunities such as match-funding and donations.

        - CNT back-end development is already complete meaning Catalyst can index Cardano blockchain to take voting power attribution from any Cardano Native Token. Only interface design unleashes all this potential.
    - Streamlined milestone management:
        - Proposal data seamlessly transfers into the statement of milestones via deep hooks to milestone module
        - Funding and contribution dashboards give users clear communications, receipts, and reputation surfaces
        - Automated assignments and service level agreement forfeits ensure reviewers are timely and accountable
        - Integrated impact data reporting and evaluation using standardized impact measurements
        - Design foundations for the integration of funding and resolution smart contracts

Features:

- Discover, Subscribe, and Interact w/ Funders and Projects: allow users to find and participate in many programs
- Advanced user preferences Research: Assisted search, AI, regionality, language, insights
- Legacy Integrations & Deployments: upgrade legacy tools and integrations to deep hook into concurrent programs
- Mobile Wallet Connect Research: understand existing solutions and challenges to enable additional mobile wallet connections
- Advanced Design Research: test and validate approaches to translating desktop UX to mobile and deep hooks
- Cardano Native Token Support: index Cardano holdings and make them available to Catalyst tools and interfaces
- Self-Service Campaign Portal: Provide scalable tools for campaign configuration, deployment, and management
- Device agnostic development: address other platform-specific requirements to ensure seamless mobile platform integration.
- Deployment Pipeline: enable seamless CI/CD app deployment, without reliance on other teams
- Account Restoration: allow a user to easily restore an existing account to a new device

√√ (Already in development) Teams, Proposals, Comments: allow a user to create proposals, alone or with a team, and comment on them
√√ Voting, Dreps, Delegation: allow a user delegate voting power, and vote on behalf of themselves or others

Production-Grade Decentralised Catalyst Infrastructure via Hermes

- **Description/Benefits**: Replace the legacy federated side-chain with Hermes: a peer-to-peer, IPFS- and WASM-based governance engine for distributed decision-making. Enables concurrent voting rounds, verifiable voting, and censorship resistance.
- **Lead**: IOG - Catalyst Team (Engineering Team)
- **In Collaboration With**: TXPipe, Globant, other subcontractors
- **Funding**: ₳2,680,000

- **Key Outputs**:
    - WASM component model upgrade
    - Parallel WASM module execution for performance
    - Secure vote casting and encrypted tallying
    - IPFS-native data execution and storage
    - Support for governance logic such as Quadratic Voting, Time-Weighted Stake

Objective: Advance the decentralisation, scalability, and auditability of Project Catalyst by delivering a rigorously stress tested implementation of Hermes to replace federated infrastructure with a fully distributed, peer-to-peer system. This includes enabling parallel voting events, secure Cardano-based vote casting, and public auditability of historic voting data that eliminates reliance on Web2 infrastructure services, empowering open innovation and ecosystem governance.

Outcome: maturing the state of the art of the Project Catalyst technology stack beyond the existing proof of concept and delivering production-ready Catalyst infrastructure using a fully distributed database and immutable ledger, configurable administration interfaces, eliminating reliance on a federated side-chain and small number of nodes while maintaining many artefacts are published to Cardano mainchain.

Output: :

I. **Enhanced scalability and flexibility** of Catalyst governance: multiple funding rounds using multiple tokens can run concurrently or overlap, dramatically increasing the system's utility and responsiveness.
II. **Stronger security and voter confidence** through direct blockchain-based verification and vote casting, reducing trust assumptions.
III. **Full decentralisation of Catalyst infrastructure**: no dependency on federated servers or Web2 storage components, reducing censorship risks and increasing resilience.
IV. **Greater transparency and auditability**: historic voting data is verifiable, immutable, and accessible through distributed networks
V. **Developer empowerment**: Builders can deploy secure, complex, and custom applications like governance mechanisms on Hermes with minimal barriers via IPFS and WebAssembly.

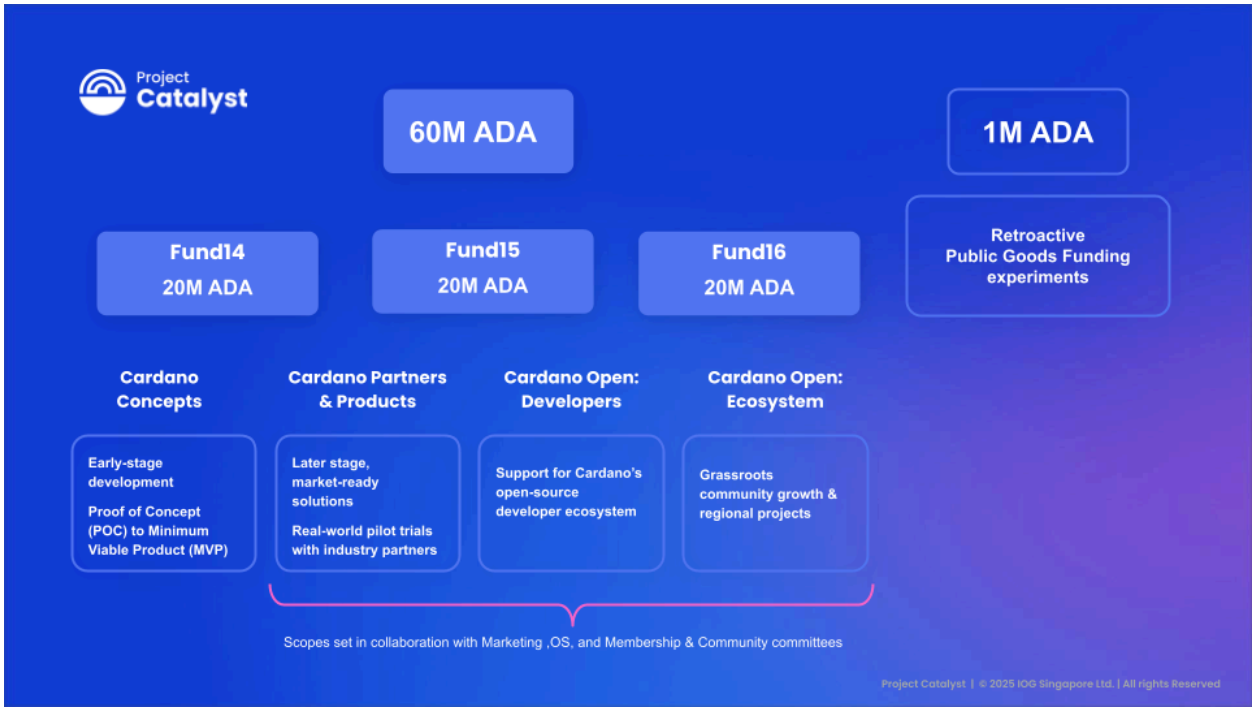
Features:

- Upgrade WASM Engine to latest Wasm Component Model required for Hermes Application Logic.
- Enhance WASM module Linker to support partial linking for modules which do not contain all events, or use all functions provided by the Hermes runtime.
- Add events for WASM driven validation of data published over IPFS Pub/Sub or the DHT.
- Make Hermes engine execute multiple WASM modules in parallel for performance and scalability testing
- Implement a generalised solution to uniformly manage system resources.
- Hermes package can read data directly from IPFS, not from a local copy downloaded from IPFS.
- Enable execution of Hermes applications from an IPFS link, not only a locally present application.
- Implement cryptography for 2024’s applied research into Quadratic Voting and Time-Weighted Stake models

F14-F16 Catalyst Funding Rounds, Retroactive Public Goods Funding (RetroPGF), Fund Operations

- **Description/Benefits**: Delivery of 3 Catalyst funding rounds (F14–F16), including milestone-based funding, cohort management, and the introduction of RetroPGF. Supports 500–700 new projects over 3 funding rounds.
- **Lead**: IOG - Catalyst Team (Operations Team)
- **In Collaboration With**: Various Intersect Committees to support category scope and shaping development
- **Funding**: ~~₳~~64,300,000
    - Of which:
        - ~~₳~~60,000,000 is allocated to provide ecosystem funding to community-approved projects through voting, administered by CFC and Input Output Catalyst, on behalf of the Cardano Community
        - ~~₳~~1,000,000 for Retroactive Public Goods Funding pilot
        - ~~₳~~3,300,000 is the service provider fee for Input Output Catalyst known as “the Catalyst Team” for program management and administration of 3 funds.
- **Key Outputs**:
    - Launch of F14–F16 rounds (~~₳~~20M each)
    - ~~₳~~1M RetroPGF allocation for public goods
    - Categories: early-stage R&D, demonstrator pilots, open-source development, creative community initiatives
    - Full operational stack: submission, review, voting, compliance, milestone funding
    - Governance enhancements: DReps, quadratic models, global co-funding participation

3 Funding Rounds and RetroPGF



This proposal intends to allocate ₳60M across three consecutive funding rounds (Fund 14, 15, and 16) during a 12month period from when the funds are first disbursed. This is expected to support 500-700 new Cardano projects. Dates provided below are for illustrative purposes only. This substantial investment aims to yield tangible results:

- **Fund14 Target launch May**, initial disbursements of funds in July/August 2025
- **Fund15 Target launch in August**, initial disbursement of funds in Dec 2025/ Jan 2026
- **Fund16 Target launch in October**, initial disbursement of funds in Feb-Mar 2026
- 30-40% of allocated funds (₳24-₳30M) are projected to result in real-world adoption or industrial use-case partnerships.
- ₳60m in funding will be strategically distributed across four key areas: early-stage R&D, later-stage product development, grassroots ecosystem initiatives, and open-source software development:
    - Cardano Concepts: supporting early stage use-case application development and demonstration from proof of concept (POC) to minimum viable product (MVP)
    - Cardano Partners & Products: supporting later stage market-ready products and use-case implementation for single applicants or in collaboration with industry leading partners to deliver real world pilot-trials
    - Cardano Open: Developers: Focused on supporting Cardano's open source developer ecosystem efforts. Intended for the scope of this category to be set in consultation with the Open Source Committee.
    - Cardano Open: Ecosystem: Focused on non-technical proposals for grassroots Cardano regional growth and community-building projects. Intended for the scope of this category

to be set in consultation with the Membership and Community Committee and relevant working group participants

- ₳1m allocated for Retroactive Public Goods Funding (RetroPGF) program

The introduction of a Retroactive Public Goods Funding (RetroPGF) experiment in 2025, with ₳1M allocated, will incentivize high-quality contributions by rewarding completed, high-impact work.

This approach limits the exposure to risk in 2025, allowing valuable experience to be gained, and ensures that valuable public goods such as open-source software, developer tools, and educational content receive appropriate recognition and provides abilities to address underrepresented regional support.

The proposal comprises three rounds of community funds of 20m ada each. The funds are focused on supporting community-decided open innovation opportunities, centred around four core workstreams, categorised as:

- Cardano Concepts: supporting early stage use-case application development and demonstration from proof of concept (POC) to minimum viable product (MVP)
- Cardano Partners & Products: supporting later stage market-ready products and use-case implementation for single applicants or in collaboration with industry leading partners to deliver real world pilot-trials
- Cardano Open: Developers: Focused on supporting Cardano's open source developer ecosystem efforts. Intended for the scope of this category to be set in consultation with the Open Source Committee.
- Cardano Open: Ecosystem: Focused on non-technical proposals for grassroots Cardano regional growth and community-building projects. Intended for the scope of this category to be set in consultation with the Membership and Community Committee and relevant working group participants

RetroPGF: Public goods that provide significant value, such as open-source software, developer tools, and educational content, are key candidates for RetroPGF structured funding round.

Each round targets specific types of contributions, such as ecosystem tools or educational initiatives. RetroPGF fills a gap for Cardano whereby builders are rewarded post-fact, even if they weren't approved to deliver the project via the general Catalyst funding streams in Cardano Use Case and Cardano Open categories. Additionally RetroPGF could become regionally focused, whereby portions of the funding allocation can be ring fenced for projects centred on and/or originating from specific regions.

RetroPGF will mark an exciting evolution and extension to the kinds of programs Catalyst can facilitate on behalf of and for the betterment of the Cardano community.

Budget allocation: ₳61,000,000

Fund Operations
With a well-established governance framework, this initiative ensures efficient fund distribution, structured community coordination, and measurable ecosystem growth. Funding will be strategically allocated across four key areas: early-stage R&D from concept to MVP, later-stage product development and pilots

with leading brands and institutions, grassroots ecosystem initiatives supporting community builders and marketers, and open-source software development.

Objectives: In each of the stages proposal submission, community review, voting stage, cohort management and funding administration core technology and human resources are required to maintain these processes. Core operations cover the breadth of services described. Efficiencies and optimizations are continually discovered with user feedback in core operations which are then translated into requirements for Catalyst technical improvements.

Outputs:

Communications, Town Halls: Develop and distribute Fund launch guides, update ProjectCatalyst.io with Fund information, publish launch and progress blogs, execute marketing and social media plans, organize and host Town Halls, publish voting guidelines on GitBook.

F15 & F16 Launch Events:

Prepare and execute Fund launch campaigns, organize and host official launch events, engage the community through presentations, ensure availability of launch materials and documentation.

Launching Catalyst fund12 in Barcelona has resulted in FC Barcelona, Techstars, Plastiks and Danone collaborating with Cardano builders or directly building on Cardano as a direct result of attending Catalyst fund launch events. The intention is for these cost-conscious yet high impact launches to continue acting as the magnet for more established industry leaders to learn about Catalyst and meet Cardano builders.

Proposal Submission stage: Publish proposal submission guidelines on GitBook, open and manage proposal submission forms, promote proposal opportunities, provide support to proposers.

Community Review stage: Publish review guidelines on GitBook, develop training materials for reviewers, open reviewer registration and compliance onboarding, allocate reviews across levels, implement the moderation module.

Catalyst Technology Provision: Maintain Catalyst infrastructure, ensure voting app availability across iOS and Android, update GitHub with technical documentation, configure supported wallets, provide live vote monitoring, manage voter tools like Snapshot and registration checker, conduct voting dry runs, maintain Catalyst Core system services including the Voting ledger, security and privacy, the Mainnet Bridge for voter registration, Catalyst Data Services, public voting archives, provide Open APIs, optimize transaction routing, balance network load, and enforce denial-of-service protection.

Cohort Management: Publish Terms and Conditions, onboarding and funding guidelines on GitBook, onboard and initiate projects through compliance processes, onboard Statement of Milestones (SOM) and Proof of Achievement (POA) reviewers, develop and maintain training materials for SOM/POA milestone reviewers, ensure funded projects submit Statements of Milestones, maintain the Fund Cohort contact address book, update ProjectCatalyst.io with milestone statements and evidence of achievement.

Funding Administration: Manage Fund Seed Account ledger and transactions, oversee milestone-based funding distribution, ensure timely funding for approved projects, conduct retrospective workshops to identify opportunities for refinement and improvements.

Data Publishing: Publish internally audited Fund results, maintain a public repository with encrypted tallies, provide audit documentation, compile and publish Fund exit survey results, update Fund data across Projectcatalyst.io

Governance and Participation Enhancement

- Voter participation is expected to grow from 7,000+ to 10,000+ wallets minimum and much more active stake involved through the enablement of DReps, increases the legitimacy of governance decisions by improving UX
- The implementation of Decentralized Representatives (DReps), Quadratic Voting (QV), and Time-Weighted Stake models is expected to lead to more representative decision-making, reducing potential whale dominance.
- Each funding round is projected to see 300,000-400,000 votes cast, reflecting up to 30% growth in fund-on-fund participation.

Conclusion

Project Catalyst has laid the groundwork for a decentralized innovation engine that is unique in its scale, transparency, and community leadership. As Catalyst enters a new phase of maturity, this proposal provides the technical, structural, and operational advancements needed to meet growing demand, investing in reducing inefficiencies and costs, and ultimately strengthening Cardano's governance foundations and values.

The budget distribution reflects the complex and multifaceted nature of Catalyst operations, ensuring comprehensive coverage of all aspects from fund management to technical infrastructure. This allocation aims to maximize efficiency in delivering the milestones and activities outlined for each upcoming Catalyst fund cycle alongside technology upgrades and the budget has been reduced to reflect the current state of development.

Through the integration of unified Catalyst components, device agnostic optimized interfaces, release of the production-grade decentralised infrastructure to replace the federated side-chain "Jormungandr" alongside the launch of three funding rounds with diversification of funding streams in scope, Catalyst will become even more inclusive, scalable, and resilient.

These upgrades are designed not only to meet today's needs or enable others to build upon the learnings of the last 4 years, but to future-proof Catalyst for the evolving landscape of decentralized governance and ecosystem growth funding and create a legacy innovation that has open, transparent principles at heart and a vision to change the face of capital allocation and human potential.